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### Some Winter Birds of the Lower Colorado Valley.

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[Read before the Northern Division of the Cooper Orn. Club, July 1, 1899.]

FROM Nov. 25 to Dec. 15, 1898, was spent in the Lower Colorado Valley about Yuma, Arizona, on the Lower Colorado at the head of the Gulf of California.

The following notes are given not with any idea of completeness, but merely as containing some of the more interesting facts then and there noted. The three weeks were exceptionally cold and stormy. The nights were often frosty, ice forming on rain-pools, even at the tide-water on the Gulf. Many of the small rodents and all the snakes and lizards had gone into hibernation.

Coming from the Colorado desert on the line of the railroad, into the valley of the Colorado, one passes over a gravelly mesa, thinly grown with *Larrea*, *Franseria*, *Chenopodium* and an occasional *Fonquiera* and *Olneya*. On reaching the alluvial bottoms, here several miles wide, a few mesquite trees, (*Prosopis*) are met with and everywhere the gray-green arrow-weed (*Tessaria borealis*), forms a dense, almost impenetrable undergrowth from five to eight feet high. These thickets are the favorite haunts of Abert's Towhees and countless Intermediate Sparrows. Near the river and along the sloughs are occasional cottonwood trees. Here were seen many birds mentioned in the list that follows. One general feature of the usual Arizona landscape surprised me,—the apparent absence of cacti. Only one species was observed, an *Opuntia*, on the sandy mesa about Yuma. None were noted in the alluvial bottoms of the Colorado or at the head of the Gulf.

A word as to the topography. On the Arizona and Sonora side of the river the gently-sloping mesa stretches south and east many miles without a break in its surface, bounded only on the extreme eastern horizon by barren, desert mountains. On the Californian side, between the river and the lofty Cordillera, the isolated desert ranges are more numerous. Of these the Pinto, Cocopah and Myola are the largest and from a distance of a few miles seem absolutely destitute of vegetation. In this region much of the country is lower than the banks of the Colorado, and subject to overflow during the summer floods of June and July, when the snow melts at the sources of the river. A little south of the Arizona—Sonora line and about ten miles west of the river are some very remarkable hot springs and mud volcanoes. At the head of the gulf are wide, level mud-flats made up of silt continually brought down by the river. On the Californian side these are of much greater extent,—desolate flats, forty or fifty miles long and from ten to twenty miles wide on which absolutely nothing grows. They lie close about the foothills of the desert mountains and are everywhere saline.

Over the southern part meander shallow sloughs of crystal water so intensely salt that great masses of pure rock salt cover the bottoms and are piled up in glistening banks along the margins. In places the surface of the flats is soft, slimy mud into which the foot sinks an inch or more; in other places the surface is hard, cracked by the sun and covered by a frost-like salt incrustation. This whole region is overflowed by the high spring and summer tides, the height of which is determined by the direction of the wind and the volume of water in the river. A southern gale at the time of the summer floods causes the highest rise in the tides. All along the river bank and gulf shore, and sometimes scattered far inland over the mud flats, are great "windrows" of drift brought down by the floods. In these may be noticed many kinds of woods:—logs of willow, cottonwood, pine and juniper with occasional railway ties and bridge timbers.

From Yuma southward to the Gulf of California there seem to be three distinctive floral areas, but the bird life does not appear so clearly differentiated. *First*: there is the flora of the sandy, gravelly mesa, more typically "desert" than that of either of the other floral areas. It is characterized by a rather uniform growth of *Larrea tridentata* through which are interspersed occasional bushes of *Asclepias subulata*, *Dalea emoryi*, *Fonquiera splendens*, *Olneya*—, *Franseria*—, *Chenopodium*— and *Artimesia*—. The vegetation is nowhere dense; the

individual plants are from 30 to 100 feet or more apart, often with sand wind-heaped about their bases. *Second:* the flora of the alluvial river-bottom, which may again be divided into the area annually overflowed by the river and that lying a few feet higher and adjoining the desert mesa. The flora changes immediately on entering the river bottom which is separated from the mesa by irregular bluffs 50 to 100 feet high. *Tessaria* abounds with occasional clumps of *Baccharis*, *Chenopodium*, *Atriplex*, a scattering growth of two mesquites, *Prosopis juliflora* and *P. pubescens*. Nearer the river and the many lagoons, which mark old river beds, are cottonwood, *Populus fremontii*, willow, *Salix* —, with an undergrowth of tule, cane and occasional dense thickets of "wild hemp." Along the ditches and some of the overflowed land *Nicotiana glauca*, *Xanthium canadense* and *Amaranthus* — grow in profusion. *Third:* on the lower river below the limit of willow, cottonwood and "hemp" and along the Gulf are wide meadows of a sea grass, *Uniola palmeri*, and scattering bunches of another *Chenopodium*, and a *Spirostachys*, both large bushes from three to eight feet high.

My route lay from Yuma south by team into Sonora about fifty miles south of the line, thence by boat fifty miles to the mouth of the river and south on the Gulf about forty miles to a point on the Californian shore; thence back to Yuma by land, usually near the river bank.

1 *Aechmophorus occidentalis*. WESTERN GREBE. A large grebe which I took to be of this species was often seen about our boat at the mouth of the Colorado.

2 *Podilymbus podiceps*. PIED-BILLED GREBE. Several specimens seen in a slough about six miles south of Yuma.

3 *Uria* sp? GUILLEMOT. Abundant off Montague Island at the head of the Gulf.

4 *Larus occidentalis*. WESTERN GULL. Abundant along the Gulf shore, and noted at many points along the river to within forty miles of Yuma.

5 *Larus delawarensis*. ? RING-BILLED GULL. Two small gulls were observed wheeling over a freshly plowed field near Yuma Nov. 29. They sometimes dropped for a moment to the ground as if picking up insects or worms.

6 *Sterna* —sp? A large tern was noted on the Gulf.

7 *Sterna* —sp? A tern about the size of *S. fosteri* was seen following the tides back and forth on the lower river and opposite Montague Island.

8 *Phalacrocorax penicillatus*. ? BRANDT'S CORMORANT. A large cormorant was observed along the lower river but no specimens were taken.

9 *Pelecanus erythrorhynchos*. AM. WHITE PELICAN. Extremely abundant along the lower river and Gulf. On the 10th of December hundreds of flocks were observed flying in a southerly direction over a point 50 miles north of the Gulf. At times several flocks would unite into one immense gathering and fairly darken the sky with their evolutions. This bird was noted on all the bars along the river and often would be seen fishing.

10 *Anas boschas*. MALLARD. Common; several shot.

11 *Anas penelope*. WIDGEON. A small flock seen on a lagoon south of Yuma Nov. 27.

12 *Anas carolinensis*. GREEN-WINGED TEAL. Common.

13 *Spatula clypeata*. SHOVELLER. Common at many points along the river.

14 *Aythya affinis*. LESSER SCAUP DUCK. One was shot on the lower river.

15 *Aythya collaris*. ? RING-NECKED DUCK. Large flocks of a duck I supposed to be of this species were seen at the head of the Gulf.

16 *Charitonetta albeola*. BUFFLE-HEAD. Several seen on the lower river.

17 *Oidemia* —sp? SCOTER. Noted in Gulf below Montague Island.

18 *Oidemia deglandi*. WHITE-WINGED SCOTER. Noted near the Californian shore twenty miles below Montague Island.

19 *Branta* —sp? BRANT. A brant, probably *B. bernicla*, was abundant everywhere along the river south of the line. Great numbers were seen on a salt pond, called Laguna Salada, about forty miles south of the line. They were especially abundant on the various mud flats near the "Hardy" slough.

20 *Ardea herodias*. GREAT BLUE HERON. Abundant along the whole river. On the Californian shore of the Gulf 30 or 40 miles south of the mouth of the river they were sometimes seen, three or four congregated together on the desolate shore line.

21 *Ardea virescens*. GREEN HERON. One was shot about six miles south of Yuma.

22 *Nycticorax nycticorax nævius*. BLACK-CROWNED NIGHT HERON. Common along the river and sloughs, from Yuma south to within ten miles of the mouth of the river.

23 *Grus mexicana*. SANDHILL CRANE. Abundant at a salt flat, Laguna Salada, and often seen along the river. According to the Mexicans they feed in large numbers on the bulbous root of some plant on the over-flowed ground and are numerous according to the abundance of this food.

24 *Fulica americana*. AMERICAN COOT. Common on all the fresh water lagoons and sloughs.

25 *Tringa bairdi*. BAIRD'S SANDPIPER. Abundant along the river and Gulf shore.

26 *Ereunetes occidentalis*. WESTERN SANDPIPER. A few sandpipers were noted along the Colorado at Yuma.

27 *Limosa fedoa*. MARBLED GODWIT. Abundant on mud shore line about 30 miles below the mouth of the Colorado. A dozen were killed with a single discharge of the gun.

28 *Symphearia semipalmata inornata*. WESTERN WILLET. Common along the river; often three or four could be seen together on the mud-flats at the water's edge.

29 *Numenius longirostris*. LONG-BILLED CURLEW. Common on the lower river and often seen on the mesa many miles from water.

30 *Aegialitis vocifera*. KILLDEER. Not uncommon about Yuma and south to salt water in the river.

31 *Callipepla gambeli*. GAMBEL'S PARTRIDGE. Abundant in the river bottom of the Colorado to about ten miles above the mouth. Here the last timber gives way to the wide salt marshes and mud flats.

32 *Zenaidura macroura*. MOURNING DOVE. Common in Colorado Valley about Yuma.

33 *Columbigallina passerina pallidescens*. MEXICAN GROUND DOVE. Two or three individuals were seen a few miles south of Yuma Nov. 27 and Dec. 13.

34 *Cathartes aura*. TURKEY VULTURE. Noted about Yuma.

35 *Accipiter velox*. SHARP-SHINNED HAWK. Noted many times along the river in the thickets of willow and cottonwood.

36 *Accipiter cooperi*. COOPER'S HAWK. A single specimen was shot by a slough near Yuma.

37 *Buteo borealis calurus*. WESTERN RED-TAIL. Common over the whole region north of salt water in the river.

38 *Buteo abbreviatus*. ZONE-TAILED HAWK. A great fire in the marsh lands and cane-brakes about fifty miles south of the Arizona line Dec. 3, attracted hundreds of these birds, undoubtedly to prey upon the abundant cotton rats (*Spermophilus*), and other rodents driven from their retreats by the heat. Some were circling high in the air, others wheeling or plunging into the dense black smoke. A few individuals of this hawk were seen at Yuma.

39 *Aquila chrysaetos*. GOLDEN EAGLE. A single specimen was seen on the bank of the Colorado, a short distance above Montague Island.

40 *Falco peregrinus anatum*. DUCK HAWK. One was observed on the Californian shore of the Gulf below Montague Island.

41 *Falco sparverius deserticola*. DESERT SPARROW HAWK. Common everywhere along the river. When we were out on the Gulf many miles from land, a male alighted for a moment on the boom of our little schooner.

42 *Polyborus cheriway*. ? AUDUBON'S CARACARA. A bird I took to be of this

species was seen by a slough south of Yuma.

43 *Asio accipitrinus*. SHORT-EARED OWL. Seen only once, Dec. 4, on a marsh on the Lower Colorado.

44 *Megascops asio trichopsis*. ? MEXICAN SCREECH OWL. The call of this or a nearly related owl was heard about our camps along the river.

45 *Bubo virginianus subarticus*. WESTERN HORNED OWL. Several were seen at night-fall along the river; they were often heard "hooting" at night.

46 *Speotyto cunicularia hypogae*. BURROWING OWL. One seen at its burrow on the mesa near Yuma.

47 *Geococcyx californianus*. ROADRUNNER. Common about Yuma and south nearly to the Gulf.

48 *Ceryle alcyon*. BELTED KINGFISHER. A few were seen along the river.

49 *Dryobates scalaris bairdi*. BAIRD'S WOODPECKER. Common in the river bottom and south as far as the timber extends.

50 *Melanerpes uropygialis*. GILA WOODPECKER. Common wherever there was timber along the river bottoms.

51 *Calaptes cafer*. RED-SHAFTED FLICKER. Common in the river bottom.

52 *Phalaenoptilus nuttalli nitidus*. ? POOR WILL. A Poor-will alighted on an open sandy spot above camp on the evening of Dec. 2. Seen but not taken.

53 *Trochilus alexandri*. ? BLACK-CHINNED HUMMINGBIRD. A small hummer was seen about the blossoms of the tree tobacco near Yuma.

54 *Sayornis saya*. SAY'S PHOEBE. Common about Yuma and south to the Gulf. I saw one apparently at home on the barren foot-hills west of the mud flats and about twenty miles south of the mouth of the Colorado.

55 *Sayornis nigricans*. BLACK PHOEBE. Several seen along the Colorado.

56 *Pyrocephalus rubineus mexicanus*. VERMILION FLYCATCHER. Common in the river bottom south of Yuma, usually near the neighborhood of water.

57 *Otocoris alpestris arenicola*. ? DESERT HORNED LARK. Seen on the mesa about Yuma and on sandy soil along the lower Colorado.

58 *Corvus corax sinuatus*. ? AMERICAN RAVEN. Common about Yuma. The birds seen may possibly have been the White-necked Raven, as no specimens were examined.

59 *Molothrus ater obscurus*. DWARF COWBIRD. Abundant about corrals at Yuma.

60 *Agelaius phoeniceus longirostris*. SONORAN RED-WINGED BLACKBIRD. A few seen about Yuma and along sloughs a few miles south of the line.

61 *Sturnella magna neglecta*. ? WESTERN MEADOWLARK. A meadowlark was common in hay fields in the bottoms south of Yuma.

62 *Scolecophagus cyancephalus*. BREWER'S BLACKBIRD. Common about Yuma and at many points along the river.

63 *Carpodacus mexicanus frontalis*. HOUSE FINCH. Abundant in great flocks in the bottoms.

64 *Astragalinus lawrencei*. LAWRENCE'S GOLDFINCH. A few birds seen about Yuma and along the river. On Dec. 2 immense flocks were seen feeding on the seeds of *Amaranthus* at the line.

65 *Poocetes gramineus confinus*. WESTERN VESPER SPARROW. Two or three were seen in the bottoms south of Yuma.

65 *Ammodramus sandwichensis alaudinus*. WESTERN SAVANNA SPARROW. A few seen in hay-fields south of Yuma.

67 *Ammodramus rostratus guttatus*. ? ST. LUCAS LARGE-BILLED SPARROW. Quite common in the marsh lands on the lower river and head of the gulf. It was not seen away from the coarse sea grass, *Uniola palmeri*.

68 *Chondestes grammacus strigatus*. WESTERN LARK SPARROW. A few were seen about Yuma and on the open fields in the river bottom.

69 *Zonotrichia leucophrys intermedia*. INTERMEDIATE SPARROW. Extremely abundant all over the bottom lands wherever there were coarse weeds or brush wood.

70 *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW. A single specimen was shot on the mesa at Yuma Nov. 27.

71 *Spizella breweri*. BREWER'S SPARROW. Seen only on the mesa near Yuma.

72 *Junco oregonus*. ? OREGON JUNCO. A small flock of juncos was seen in a willow thicket near the line, Dec. 2.

73 *Amphispiza belli cinera*. ? GRAY SAGE SPARROW. A few were seen in dense thickets of *Atriplex* near Yuma.

74 *Melospiza fasciata fallax*. DESERT SONG SPARROW. Common in damp thickets along the Colorado. I did not observe a song sparrow in the salt marshes.

75 *Pipilo aberti*. ABERT'S TOWHEE. Extremely abundant in the river bottoms.

76 *Phainopepla nitens*. PHAINOPEPLA. Abundant wherever there were mesquite trees infested with mistletoe. With many other birds they feed upon the ripe berries.

77 *Lanius ludovicianus excubitorides*. WHITE-RUMPED SHRIKE. Several were seen on the mesa and in the river bottom.

78 *Dendroica auduboni*. AUDUBON'S WARBLER. Abundant everywhere in the river bottom.

79 *Geothlypis trichas occidentalis*. WESTERN YELLOW-THROAT. Not uncommon in the river bottom among tule and cane thickets.

80 *Anthus pensylvanicus*. AMERICAN PIPIT. Common along the river from Yuma to salt water. Often seen in scattered flocks on the sand bars and low banks.

81 *Oroscoptes montanus*. SAGE THRASHER. Common in the dry brushy thickets in the river bottom.

82 *Mimus polyglottos*. MOCKINGBIRD. Common in the dryer portions of the river bottom.

83 *Heleodytes brunneicapillus*. CACTUS WREN. Common among mesquite trees in river bottom.

84 *Salpinctes obsoletus*. ROCK WREN. A few were seen about deserted and ruined buildings in Yuma.

85 *Thryothorus bewickii leucogaster*. BAIRD'S WREN. Observed only once, Dec. 1, on the bottom near the Sonora line.

86 *Cistothorus palustris paludicola*. TULE WREN. Common in tule tracts and about the salt marshes at the head of the Gulf.

87 *Auriparus flaviceps*. VERDIN. Common in mesquite and willow thickets; sometimes seen in scattered flocks of ten or twenty.

88 *Regulus calendula*. RUBY-CROWNED KINGLET. Common in bottoms wherever there were trees and bushes.

89 *Polioptila plumbea*. PLUMBEOUS GNATCATCHER. A single specimen was seen on the mesa south of the line.

90 *Sialia mexicana occidentalis*. WESTERN BLUEBIRD. Common in the river bottom, feeding largely on the ripe berries of mistletoe.

91 *Sialia arctica*. MOUNTAIN BLUEBIRD. Common about alfalfa fields in the river bottom. I did not observe this species feeding on the mistletoe.



## Echoes from the Field.

Bobolink at Monterey and White-throated Sparrow at Santa Cruz, Gal. Mr. C. Littlejohn's capture of a Bobolink at Redwood City is not the first record for California. On Oct. 14, 1896, I shot a female Bobolink near Monterey. This capture has been reported at different times, but so far as I am aware, has not yet appeared in print.

On New Year's Day, 1894, I took at Santa Cruz a male White-throated Sparrow and later saw another. This was the fifth record for the state, four others having been previously reported (Merriam). These with the four reported by Mr. McGregor gives a total of nine White-throated Sparrows for California.—GEO. F. BRENNINGER, Phoenix, Arizona.